IN THE CLAIMS

1. (Canceled)

2. (Currently Amended) ~~A network apparatus as claimed in claim 1,~~ A network apparatus arranged to be connected to at least one other apparatus via at least one transmission medium, comprising:

a band controller for providing an instruction to transmit a control frame that temporarily suspends frame transmission from said at least one other apparatus; and

a transmitter connected to said at least one transmission medium for transmitting said control frame to said at least one transmission medium according to the instruction from said band controller;

wherein said network apparatus controls the transmission band volume of a frame transmitted from said at least one other apparatus to within a preset band volume; and

wherein said band controller periodically instructs said transmitter to transmit said control frame.

3. (Original) A network apparatus as claimed in claim 2, further comprising:

a timer for measuring a predetermined transmission interval;

wherein said band controller provides an instruction for the transmission of said control frame each time said timer measures said predetermined transmission interval.

4-5. (Canceled).

6. (Currently Amended) ~~A network apparatus as claimed in claim 5,~~ A network apparatus arranged to be connected to at least one other apparatus via at least one transmission medium, comprising:

a band controller for providing an instruction to transmit a control frame that temporarily suspends frame transmission from said at least one other apparatus; and

a transmitter connected to said at least one transmission medium for transmitting said control frame to said at least one transmission medium according to the instruction from said band controller;

wherein said network apparatus controls the transmission band volume of a frame transmitted from said at least one other apparatus to within a preset band volume;

wherein said transmitter is provided to correspond to said at least one other apparatus, and includes at least one port connected to said at least one transmission medium;

wherein said transmitter transmits said control frame from said at least one port; and

wherein said band controller periodically instructs said transmitter to transmit said control frame.

7. (Currently Amended) ~~A network apparatus as claimed in claim 5,~~ A network apparatus arranged to be connected to at least one other apparatus via at least one transmission medium, comprising:

a band controller for providing an instruction to transmit a control frame that temporarily suspends frame transmission from said at least one other apparatus; and

a transmitter connected to said at least one transmission medium for transmitting said control frame to said at least one transmission medium according to the instruction from said band controller;

wherein said network apparatus controls the transmission band volume of a frame transmitted from said at least one other apparatus to within a preset band volume;

wherein said transmitter is provided to correspond to said at least one other apparatus, and includes at least one port connected to said at least one transmission medium;

wherein said transmitter transmits said control frame from said at least one port;

wherein said preset band volume is set to correspond to the total of the frame transmission band volume transmitted from said at least one other apparatus; and

wherein said band controller instructs said transmitter to transmit said control frame when the total of the frame transmission band volume transmitted from said at least one other apparatus exceeds said preset band volume.

8. (Currently Amended) ~~A network apparatus as claimed in claim 5,~~ A network apparatus arranged to be connected to at least one other apparatus via at least one transmission medium, comprising:

a band controller for providing an instruction to transmit a control frame that temporarily suspends frame transmission from said at least one other apparatus; and

a transmitter connected to said at least one transmission medium for transmitting said control frame to said at least one transmission medium according to the instruction from said band controller;

wherein said network apparatus controls the transmission band volume of a frame transmitted from said at least one other apparatus to within a preset band volume;

wherein said transmitter is provided to correspond to said at least one other apparatus, and includes at least one port connected to said at least one transmission medium;

wherein said transmitter transmits said control frame from said at least one port;

wherein said preset band volume is set to correspond to each of some of said at least one other apparatus; and

wherein said band controller instructs said transmitter to transmit said control frame to the port provided to correspond to said at least one other apparatus when the transmission band volume of a frame transmitted from said at

least one other apparatus exceeds the band volume preset for said at least one other apparatus.

9. (Canceled)

10. (Currently Amended) ~~A network apparatus as claimed in claim 5,~~ A network apparatus arranged to be connected to at least one other apparatus via at least one transmission medium, comprising:

a band controller for providing an instruction to transmit a control frame that temporarily suspends frame transmission from said at least one other apparatus; and

a transmitter connected to said at least one transmission medium for transmitting said control frame to said at least one transmission medium according to the instruction from said band controller;

wherein said network apparatus controls the transmission band volume of a frame transmitted from said at least one other apparatus to within a preset band volume;

wherein said transmitter is provided to correspond to said at least one other apparatus, and includes at least one port connected to said at least one transmission medium;

wherein said transmitter transmits said control frame from said at least one port; and

wherein said network apparatus includes at least one said band controller that corresponds to each of some of said at least one port.

11. (Currently Amended) ~~A network apparatus as claimed in claim 5,~~ A network apparatus arranged to be connected to at least one other apparatus via at least one transmission medium, comprising:

a band controller for providing an instruction to transmit a control frame that temporarily suspends frame transmission from said at least one other apparatus; and

a transmitter connected to said at least one transmission medium for transmitting said control frame to said at least one transmission medium according to the instruction from said band controller;

wherein said network apparatus controls the transmission band volume of a frame transmitted from said at least one other apparatus to within a preset band volume;

wherein said transmitter is provided to correspond to said at least one other apparatus, and includes at least one port connected to said at least one transmission medium;

wherein said transmitter transmits said control frame from said at least one port; and

wherein said network apparatus includes only one unit of said band controller.

12. (Original) A network apparatus as claimed in claim 3, wherein said band controller includes a plurality of registers, and said plurality of registers each retain said preset band volume, a period for which said at least one other apparatus is made to suspend frame transmission, and said predetermined transmission interval.

13. (Currently Amended) ~~A network apparatus as claimed in claim 4, further comprising:~~ A network apparatus arranged to be connected to at least one other apparatus via at least one transmission medium, comprising:

a band controller for providing an instruction to transmit a control frame that temporarily suspends frame transmission from said at least one other apparatus;

a transmitter connected to said at least one transmission medium for transmitting said control frame to said at least one transmission medium according to the instruction from said band controller; and

a measuring unit for measuring the transmission band volume of a frame transmitted from said at least one other apparatus;

wherein said network apparatus controls the transmission band volume of a frame transmitted from said at least one other apparatus to within a preset band volume;

wherein said band controller instructs said transmitter to transmit said control frame when the transmission band volume of a frame transmitted from said at least one other apparatus exceeds said preset band volume; and

wherein said band controller further comprises:

a plurality of registers each retaining said preset band volume, a suspension period for which said at least one other apparatus is made to suspend frame transmission, and a traffic observation interval for periodically reading the transmission band volume measured by the measuring unit; and

a timer for measuring said traffic observation interval;

wherein said band controller reads the transmission band volume measured by said measuring unit each time said timer measures said traffic observation time, and if said band controller determines that the read transmission band volume exceeds said preset band volume, said band controller calculates said suspension period and instructs said transmitter to transmit said control frame including said calculated suspension period.

14. (Canceled)

15. (Currently Amended) ~~A network apparatus as claimed in claim 14,~~ A network apparatus arranged to be connected to a plurality of apparatus via a plurality of transmission media, comprising:

a plurality of ports each connected to one of said plurality of transmission media, each of said plurality of apparatus being connected to one or more ports of said plurality of ports via one or more transmission media;

a band controller for providing an instruction to transmit a control frame that temporarily suspends frame transmission by each of said plurality of apparatus; and

a transmitter for transmitting said control frame from each of said plurality of ports to each of said plurality of transmission media, according to the instruction from said band controller;

wherein said network apparatus controls the transmission band volume of a frame transmitted from each of said plurality of apparatus to within a preset band volume; and

wherein said band controller periodically instructs said transmitter to transmit said control frame to at least one apparatus of said plurality of apparatus.

16. (Currently Amended) ~~A network apparatus as claimed in claim 14,~~ A network apparatus arranged to be connected to a plurality of apparatus via a plurality of transmission media, comprising:

a plurality of ports each connected to one of said plurality of transmission media, each of said plurality of apparatus being connected to one or more ports of said plurality of ports via one or more transmission media;

a band controller for providing an instruction to transmit a control frame that temporarily suspends frame transmission by each of said plurality of apparatus; and

a transmitter for transmitting said control frame from each of said plurality of ports to each of said plurality of transmission media, according to the instruction from said band controller;

wherein said network apparatus controls the transmission band volume of a frame transmitted from each of said plurality of apparatus to within a preset band volume;

wherein said preset band volume is set to correspond to the total of the frame transmission band volume transmitted from said plurality of apparatus; and

wherein said band controller instructs said transmitter to transmit said control frame if the total of said frame transmission band volume exceeds said preset band volume.

17. (Currently Amended) A network apparatus as claimed in claim [[14]] 19,

wherein said preset band volume is set for each of said plurality of apparatus in such a way as to correspond to the transmission band volume of a frame transmitted from each of said plurality of apparatus; and

wherein if the transmission band volume of a frame transmitted from any one apparatus of said plurality of

apparatus exceeds said preset band volume that corresponds to said any one apparatus, said band controller instructs said transmitter to transmit said control frame to said any one apparatus.

18. (Currently Amended) ~~A network apparatus as claimed in claim 14,~~ A network apparatus arranged to be connected to a plurality of apparatus via a plurality of transmission media, comprising:

a plurality of ports each connected to one of said plurality of transmission media, each of said plurality of apparatus being connected to one or more ports of said plurality of ports via one or more transmission media;

a band controller for providing an instruction to transmit a control frame that temporarily suspends frame transmission by each of said plurality of apparatus; and

a transmitter for transmitting said control frame from each of said plurality of ports to each of said plurality of transmission media, according to the instruction from said band controller;

wherein said network apparatus controls the transmission band volume of a frame transmitted from each of said plurality of apparatus to within a preset band volume;

wherein said preset band volume is set for each of said plurality of transmission media in such a way as to correspond to the transmission band volume of a frame transmitted via each of said plurality of transmission media; and

wherein if the transmission band volume of a frame transmitted via any one of said plurality of transmission media exceeds said preset band volume that corresponds to said any one transmission medium, said band controller instructs said transmitter to transmit said control frame from a port connected to said any one transmission medium.

19. (Currently Amended) ~~A network apparatus as claimed in claim 14,~~ A network apparatus connected to a plurality of apparatus via a plurality of transmission media, comprising:

a plurality of ports each connected to one of said plurality of transmission media, each of said plurality of apparatus being connected to one or more ports of said plurality of ports via one or more transmission media;

a band controller for providing an instruction to transmit a control frame that temporarily suspends frame transmission by each of said plurality of apparatus; and

a transmitter for transmitting said control frame from each of said plurality of ports to each of said plurality of transmission media, according to the instruction from said band controller;

wherein said network apparatus controls the transmission band volume of a frame transmitted from each of said plurality of apparatus to within a preset band volume;

wherein said transmitter includes at least one link aggregation sub-layer and a plurality of MAC control units;

wherein said at least one link aggregation sub-layer receives an instruction from said band controller and distributes said instruction to each of said plurality of MAC control units; and

wherein each of said plurality of MAC control units corresponds to each of said plurality of ports, and transmits said control frame from each of said plurality of ports according to the instruction from said band controller.

20. (Original) A network apparatus as claimed in claim 19,

wherein said band controller consists of a plurality of band controllers, and each of said plurality of band controllers corresponds to each of said plurality of MAC control units and periodically instructs one MAC control unit of said plurality of MAC control units that corresponds to itself to transmit said control frame.

21. (Original) A network apparatus as claimed in claim 19, further comprising:

a byte counter for summing the frame transmission band volume transmitted via said plurality of transmission media;

wherein only one said band controller is provided for said plurality of MAC control units, and provides an instruction for the transmission of said control frame when the total of said transmission band volume exceeds said preset band volume.

22-23. (Canceled)

24. (Currently Amended) ~~A method of communication as claimed in claim 23,~~ A method of communication between at least one first apparatus and at least one second apparatus connected to said at least one first apparatus via at least one transmission medium, comprising the steps of:

transmitting a frame from said at least one first apparatus;

receiving said transmitted frame by means of said at least one second apparatus;

transmitting a control frame that instructs to temporarily suspend frame transmission to be performed by said at least one first apparatus using said at least one second apparatus;

receiving said control frame at said at least one first apparatus; and

temporarily suspending frame transmission at said at least one first apparatus in response to said received control frame;

wherein the step of transmitting said control frame includes the step of preparing a control frame with a set suspension period for which said at least one first apparatus is made to suspend frame transmission;

wherein at said suspending step, frame transmission is suspended for said suspension period that is set in said control frame;

wherein frame transmission by said at least one first apparatus is resumed after said suspension period has passed;

wherein at the step of transmitting said control frame, said control frame is periodically transmitted by said at least one second apparatus; and

wherein at said suspending step, frame transmission is periodically suspended according to said control frame that is periodically received.

25. (Currently Amended) ~~A method of communication as claimed in claim 23, further comprising the step of:~~ A method of communication between at least one first apparatus and at least one second apparatus connected to said at least one first apparatus via at least one transmission medium, comprising the steps of:

transmitting a frame from said at least one first apparatus;

receiving said transmitted frame by means of said at least one second apparatus;

transmitting a control frame that instructs to temporarily suspend frame transmission to be performed by said at least one first apparatus using said at least one second apparatus;

receiving said control frame at said at least one first apparatus; and

temporarily suspending frame transmission at said at least one first apparatus in response to said received control frame;

wherein the step of transmitting said control frame includes the step of preparing a control frame with a set suspension period for which said at least one first apparatus is made to suspend frame transmission;

wherein at said suspending step, frame transmission is suspended for said suspension period that is set in said control frame;

wherein frame transmission by said at least one first apparatus is resumed after said suspension period has passed;

wherein said method further comprises the step of setting a band volume allowable to be used by a frame transmitted from said at least one first apparatus within a range of the

communication band volume possessed by said at least one transmission medium; and

wherein at the step of transmitting said control frame, said control frame is transmitted when the transmission band volume of a frame transmitted from said at least one first apparatus exceeds said set band volume.

26. (Currently Amended) A method of communication as claimed in claim 25,

wherein the step of transmitting said control frame further includes the steps of:

measuring the transmission band volume of a frame transmitted from said at least one first apparatus; ~~and~~

calculating a suspension period when said measured transmission band volume exceeds said set band volume; and

wherein at the step of preparing said control frame, said calculated suspension period is set in said control frame.

27. (Original) A method of communication as claimed in claim 26,

wherein at the step of measuring said transmission band volume, transmission band volume per predetermined period is measured.